OIPE

ENTERED

```
       4 <110> APPLICANT: Wang, Tongtong
       5        Wang, Aijun
       6        Skeiky, Yasir A.W.
       7        Li, Samual X.
       8        Kalos, Michael D.
       9        Henderson, Robert A.
      10        McNeill, Patricia D.
      11        Fanger, Neil
      12        Retter, Marc W.
      13        Durham, Margarita
      14        Fanger, Gary R.
      15        Vedvick, Thomas S.
      16        Carter, Darrick
      17        Watanabe, Yoshihiro
      18        Peckman, David W.
      19        Cai, Feng
      20        Foy, Teresa M.
      24 <120> TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
      25        AND DIAGNOSIS OF LUNG CANCER
      28 <130> FILE REFERENCE: 210121.455C17
C--> 30 <140> CURRENT APPLICATION NUMBER: US/10/007,700
      31 <141> CURRENT FILING DATE: 2001-11-30
      33 <160> NUMBER OF SEQ ID NOS: 469
      35 <170> SOFTWARE: FastSEQ for Windows Version 4.0
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      38 <211> LENGTH: 315
      39 <212> TYPE: DNA
      40 <213> ORGANISM: Homo sapiens
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      49 cagctgccgt gagactcccg atgtcacagg cagtctgtgt ggttacagcg ccccctcagtg 120
      50 ttcatctcca gcagagacaa cggaggaggc tcccaccagg acggttctca ttatttatat 180
W--> 51 gttaatatgt ttgtaaactc atgtacagtt tttttggggg gggaagcaat gggaanggta 240
W--> 52 naaattacaa atagaatcat ttgctgtaat ccttaaatgg caaacggtca ggccacgtga 300
      53 aaaaaaaaaa aaaaa                                                 315
      55 <210> SEQ ID NO: 2
      56 <211> LENGTH: 380
      57 <212> TYPE: DNA
      58 <213> ORGANISM: Homo sapiens
      60 <400> SEQUENCE: 2
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      62 atatatataa acaaatacaa aaagttttga gtggttcagc tttttattt tttttaatgg 120
      63 cataactttt aacaacactg ctctgtaatg ggttgaactg tggtactcag actgagataa 180
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                   RAW SEQUENCE LISTING              DATE: 12/18/2001
                   PATENT APPLICATION:  US/10/007,700    TIME: 16:18:48

                   Input Set : A:\455c17.app.txt
                   Output Set: N:\CRF3\12182001\J007700.raw

     64 ctgaaatgag tggatgtata gtgttattgc ataattatcc cactatgaag caaagggact 240
     65 ggataaattc ccagtctaga ttattagcct ttgttaacca tcaagcacct agaagaagaa 300
     66 ttattggaaa ttttgtcctc tgtaactggc actttggggt gtgacttatc ttttgccttt 360
     67 gtaaaaaaaa aaaaaaaaaa                                                380
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     70 <211> LENGTH: 346
     71 <212> TYPE: DNA
     72 <213> ORGANISM: Homo sapiens
     74 <220> FEATURE:
     75 <221> NAME/KEY: misc_feature
     76 <222> LOCATION: 316, 317, 318, 322, 323, 326, 329, 330, 331, 336, 337, 339,
     77        340, 342, 343
     78 <223> OTHER INFORMATION: n = A,T,C or G
     80 <400> SEQUENCE: 3
     81 ttgtaagtat acaattttag aaaggattaa atgttattga tcattttact gaatactgca 60
     82 catcctcacc atacaccatc cactttccaa taacatttaa tcctttctaa aattgtaagt 120
     83 atacaattgt actttctttg gattttcata acaaatatac catagactgt taattttatt 180
     84 gaagtttcct taatggaatg agtcattttt gtcttgtgct tttgaggtta cctttgcttt 240
     85 gacttccaac aatttgatca tatagtgttg agctgtggaa atctttaagt ttattctata 300
W--> 86 gcaataattt ctattnnnag annccnggnn naaaannann annaaa            346
     88 <210> SEQ ID NO: 4
     89 <211> LENGTH: 372
     90 <212> TYPE: DNA
     91 <213> ORGANISM: Homo sapiens
     93 <220> FEATURE:
     94 <221> NAME/KEY: misc_feature
     95 <222> LOCATION: 297, 306, 332
     96 <223> OTHER INFORMATION: n = A,T,C or G
     98 <400> SEQUENCE: 4
     99 actagtctca ttactccaga attatgctct tgtacctgtg tggctgggtt tcttagtcgt 60
    100 tggtttggtt tggttttttg aactggtatg tagggtggtt cacagttcta atgtaagcac 120
    101 tctcttctcc aagttgtgct ttgtggggac aatcattctt tgaacattag agaggaaggc 180
    102 agttcaagct gttgaaaaga ctattgctta tttttgtttt taaagaccta cttgacgtca 240
W--> 103 tgtggacagt gcacgtgcct tacgctacat cttgttttct aggaagaagg ggatgcnggg 300
W--> 104 aaggantggg tgctttgtga tggataaaac gnctaaataa cacaccttta cattttgaaa 360
    105 aaaacaaaac aa                                                 372
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    108 <211> LENGTH: 698
    109 <212> TYPE: DNA
    110 <213> ORGANISM: Homo sapiens
    112 <220> FEATURE:
    113 <221> NAME/KEY: misc_feature
    114 <222> LOCATION: 8, 345, 422, 430, 433, 436, 438, 472, 481, 486, 515, 521,
    115        536, 549, 553, 556, 557, 559, 568, 593, 597, 605, 611, 613,
    116        616, 618, 620, 628, 630, 632, 634, 635, 639, 643, 647, 648,
    117        649, 652, 654, 658, 664, 690
    118 <223> OTHER INFORMATION: n = A,T,C or G
    120 <400> SEQUENCE: 5
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       123 gcataaagcc aatgtagtcc agtttctaag atcatgttcc aagctaactg aatcccactt 180
       124 caatacacac tcatgaactc ctgatggaac aataacaggc ccaagcctgt ggtatgatgt 240
       125 gcacacttgc tagactcaga aaaaatacta ctctcataaa tgggtgggag tattttgggt 300
W--> 126 gacaacctac tttgcttggc tgagtgaagg aatgatattc atatnttcat ttattccatg 360
       127 gacatttagt tagtgctttt tatataccag gcatgatgct gagtgacact cttgtgtata 420
W--> 128 tntccaaatn ttngtncngt cgctgcacat atctgaaatc ctatattaag antttcccaa 480
W--> 129 natgangtcc ctggtttttc cacgccactt gatcngtcaa ngatctcacc tctgtntgtc 540
W--> 130 ctaaaaccnt ctnctnnang gttagacngg acctctcttc tcccttcccg aanaatnaag 600
W--> 131 tgtgngaaga nanccncncn ccccccctncn tncnncctng ccngctnnnc cncntgtngg 660
W--> 132 gggngccgcc cccgcggggg gacccccccn ttttcccc              698
       134 <210> SEQ ID NO: 6
       135 <211> LENGTH: 740
       136 <212> TYPE: DNA
       137 <213> ORGANISM: Homo sapiens
       139 <220> FEATURE:
       140 <221> NAME/KEY: misc_feature
       141 <222> LOCATION: 82, 406, 426, 434, 462, 536, 551, 558, 563, 567, 582, 584,
       142          592, 638, 651, 660, 664, 673, 675, 697, 706, 711, 715, 716,
       143          717, 723, 724, 725, 733
       144 <223> OTHER INFORMATION: n = A,T,C or G
       146 <400> SEQUENCE: 6
       147 actagtcaaa aatgctaaaa taatttggga gaaaatattt tttaagtagt gttatagttt 60
W--> 148 catgtttatc ttttattatg tnttgtgaag ttgtgtcttt tcactaatta cctatactat 120
       149 gccaatattt ccttatatct atcccataaca tttatactac atttgtaaga gaatatgcac 180
       150 gtgaaactta acactttata aggtaaaaat gaggtttcca agatttaata atctgatcaa 240
       151 gttcttgtta tttccaaata gaatggactt ggtctgttaa ggggctaagg gagaagaaga 300
       152 agataaggtt aaaagttgtt aatgaccaaa cattctaaaa gaaatgcaaa aaaaaattta 360
W--> 153 ttttcaagcc ttcgaactat ttaaggaaag caaaatcatt tcctanatgc atatcatttg 420
W--> 154 tgagantttc tcantaatat cctgaatcat tcatttcagc tnaggcttca tgttgactcg 480
W--> 155 atatgtcatc tagggaaagt ctatttcatg gtccaaacct gttgccatag ttggtnaggc 540
W--> 156 tttcctttaa ntgtgaanta ttnacangaa attttctctt tnanagttct tnatagggtt 600
W--> 157 aggggtgtgg gaaaagcttc taacaatctg tagtgttncg tgttatctgt ncagaaccan 660
W--> 158 aatnacggat cgnangaagg actgggtcta tttacangaa cgaatnatct ngttnnntgt 720
W--> 159 gtnnncaact ccngggagcc              740
       161 <210> SEQ ID NO: 7
       162 <211> LENGTH: 670
       163 <212> TYPE: DNA
       164 <213> ORGANISM: Homo sapiens
       166 <220> FEATURE:
       167 <221> NAME/KEY: misc_feature
       168 <222> LOCATION: 265, 268, 457, 470, 485, 546, 553, 566, 590, 596, 613, 624,
       169          639, 653, 659, 661
       170 <223> OTHER INFORMATION: n = A,T,C or G
       172 <400> SEQUENCE: 7
       173 gctggggagc tcggcatggc ggtccccgct gcagccatgg ggccctcggc gttgggccag 60
       174 agcggccccg gctcgatggc cccgtggtgc tcagtgagca gcggcccgtc gcgctacgtg 120
       175 cttgggatgc aggagctgtt ccggggccac agcaagaccg cgagttcctg gcgcacagcg 180
       176 ccaaggtgca ctcggtggcc tggagttgcg acgggcgtcg cctacctcgg ggtcttcgac 240
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                  RAW SEQUENCE LISTING          DATE: 12/18/2001
                  PATENT APPLICATION:  US/10/007,700     TIME: 16:18:48

                  Input Set : A:\455c17.app.txt
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W--> 177 aagacgccac gtcttcttgc tgganaanga ccgttggtca aagaaaacaa ttatcgggga 300
     178 catggggata gtgtggacca ctttgttggc atccaagtaa tcctgaccta tttgttacgg 360
     179 cgtctggaga taaaaccatt cgcatctggg atgtgaggac tacaaaatgc attgccactg 420
W--> 180 tgaacactaa aggggagaac attaatatct gctggantcc tgatgggcan accattgctg 480
W--> 181 tagcnacaag gatgatgtgg tgactttatt gatgccaaga aaccccgttc caaagcaaaa 540
W--> 182 aaacanttcc aanttcgaag tcaccnaaat ctcctggaac aatgaacatn aatatnttct 600
W--> 183 tcctgacaat ggnccttggg tgtntcacat cctcagctnc cccaaaactg aancctgtnc 660
W--> 184 natccacccc                                                      670
     186 <210> SEQ ID NO: 8
     187 <211> LENGTH: 689
     188 <212> TYPE: DNA
     189 <213> ORGANISM: Homo sapiens
     191 <220> FEATURE:
     192 <221> NAME/KEY: misc_feature
     193 <222> LOCATION: 253, 335, 410, 428, 448, 458, 466, 479, 480, 482, 483, 485,
     194        488, 491, 492, 495, 499, 500, 502, 503, 512, 516, 524, 525,
     195        526, 527, 530, 540, 546, 550, 581, 593, 594, 601, 606, 609,
     196        610, 620, 621, 622, 628, 641, 646, 656, 673
     197 <223> OTHER INFORMATION: n = A,T,C or G
     199 <400> SEQUENCE: 8
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     201 aaatgaagta ctggatttgg gaaaacctgg ttttattaga acatatggaa tgaaagccta 120
     202 cacctagcat tgcctactta gcccctgaa ttaacagagc ccaattgaga caaacccctg 180
     203 gcaacaggaa attcaaggga gaaaaagtaa gcaacttggg ctaggatgag ctgactccct 240
W--> 204 tagagcaaag ganagacagc ccccattacc aaataccatt tttgcctggg gcttgtgcag 300
W--> 205 ctggcagtgt tcctgccca gcatggcacc ttatngtttt gatagcaact tcgttgaatt 360
W--> 206 ttcaccaact tattacttga aattataata tagcctgtcc gtttgctgtn tccaggctgt 420
W--> 207 gatatatntt cctagtggtt tgactttnaa aataaatnag gtttantttt ctccccccnn 480
W--> 208 cnntnctncc nntcnctcnn cnntcccccc cnctcngtcc tccnnnnttn gggggggccn 540
W--> 209 cccccncggn ggacccccct ttggtccctt agtggaggtt natggcccct ggnnttatcc 600
W--> 210 nggccntann tttccccgtn nnaaatgntt cccctccca ntcccnccac ctcaanccgg 660
W--> 211 aagcctaagt ttntaccctg ggggtcccc                                 689
     213 <210> SEQ ID NO: 9
     214 <211> LENGTH: 674
     215 <212> TYPE: DNA
     216 <213> ORGANISM: Homo sapiens
     218 <220> FEATURE:
     219 <221> NAME/KEY: misc_feature
     220 <222> LOCATION: 602, 632, 639, 668
     221 <223> OTHER INFORMATION: n = A,T,C or G
     223 <400> SEQUENCE: 9
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     225 taaaaaatgc ttgttctata gtggagtaag agctcacaca cccaaggcag caagataact 120
     226 gaaaaaagcg aggctttttt gccaccttgg taaaggccag ttcactgcta tagaactgct 180
     227 ataagcctga agggaagtag ctatgagact ttccattttt cttagttctc ccaataggct 240
     228 ccttcatgga aaaaggcttc ctgtaataat tttcacctaa tgaattagca gtgtgattat 300
     229 ttctgaaata agagacaaat tgggccgcag agtcttcctg tgatttaaaa taaacaaccc 360
     230 aaagtttttgt ttggtcttca ccaaaggaca tactctaggg ggtatgttgt tgaagacatt 420
     231 caaaaacatt agctgttctg tctttcaatt tcaagttatt ttggagactg cctccatgtg 480
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              RAW SEQUENCE LISTING              DATE: 12/18/2001
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              Input Set : A:\455c17.app.txt
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        232 agttaattac tttgctctgg aactagcatt attgtcatta tcatcacatt ctgtcatcat 540
        233 catctgaata atattgtgga tttccccctc tgcttgcatc ttcttttgac tcctctggga 600
W--> 234 anaaatgtca aaaaaaaagg tcgatctact cngcaaggnc catctaatca ctgcgctgga 660
W--> 235 aggacccnct gccc                                                 674
        237 <210> SEQ ID NO: 10
        238 <211> LENGTH: 346
        239 <212> TYPE: DNA
        240 <213> ORGANISM: Homo sapiens
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        243 <221> NAME/KEY: misc_feature
        244 <222> LOCATION: 320, 321, 322, 325, 326, 328, 329, 330, 332, 333, 334, 335,
        245       342
        246 <223> OTHER INFORMATION: n = A,T,C or G
        248 <400> SEQUENCE: 10
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        250 ttctgtctgt aacaaaaatg tactttatag agatggagga aaaggtctaa tactacatag 120
        251 ccttaagtgt ttctgtcatt gttcaagtgt attttctgta acagaaacat atttggaatg 180
        252 tttttctttt ccccttataa attgtaattc ctgaaatact gctgctttaa aaagtcccac 240
        253 tgtcagatta tattatctaa caattgaata ttgtaaatat acttgtctta cctctcaata 300
W--> 254 aaagggtact tttctattan nnagnngnnn gnnnnataaa anaaaa        346
        256 <210> SEQ ID NO: 11
        257 <211> LENGTH: 602
        258 <212> TYPE: DNA
        259 <213> ORGANISM: Homo sapiens
        261 <400> SEQUENCE: 11
        262 actagtaaaa agcagcattg ccaaataatc cctaattttc cactaaaaat ataatgaaat 60
        263 gatgttaagc tttttgaaaa gtttaggtta aacctactgt tgttagatta atgtatttgt 120
        264 tgcttccctt tatctggaat gtggcattag cttttttatt ttaaccctct ttaattctta 180
        265 ttcaattcca tgacttaagg ttggagagct aaacactggg atttttggat aacagactga 240
        266 cagttttgca taattataat cggcattgta catagaaagg atatggctac cttttgttaa 300
        267 atctgcactt tctaaatatc aaaaaaggga aatgaagtta taaatcaatt tttgtataat 360
        268 ctgtttgaaa catgagtttt atttgcttaa tattagggct ttgccccttt tctgtaagtc 420
        269 tcttgggatc ctgtgtagaa ctgttctcat taaacaccaa acagttaagt ccattctctg 480
        270 gtactagcta caaattcggt ttcatattct acttaacaat ttaaataaac tgaaatattt 540
        271 ctagatggtc tacttctgtt catataaaaa caaaacttga tttccaaaaa aaaaaaaaa 600
        272 aa                                                 602
        274 <210> SEQ ID NO: 12
        275 <211> LENGTH: 685
        276 <212> TYPE: DNA
        277 <213> ORGANISM: Homo sapiens
        279 <220> FEATURE:
        280 <221> NAME/KEY: misc_feature
        281 <222> LOCATION: 170, 279, 318, 321, 322, 422, 450, 453, 459, 467, 468, 470,
        282       473, 475, 482, 485, 486, 491, 498, 503, 506, 509, 522, 526,
        283       527, 528, 538, 542, 544, 551, 567, 568, 569, 574, 576, 582,
        284       587, 588, 589, 590, 592, 593, 598, 599, 603, 605, 608
        285 <223> OTHER INFORMATION: n = A,T,C or G
        287 <221> NAME/KEY: misc_feature
        288 <222> LOCATION: 633, 634, 635, 644, 646, 648, 651, 655, 660, 662, 663, 672,
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Use of n and / or Xaa has been detected in the Sequence Listing. Review the Sequence Listing to ensure a corresponding explanation is present in the <220> to <223> fields of each sequence using n or Xaa.

VERIFICATION SUMMARY   DATE: 12/18/2001
PATENT APPLICATION: US/10/007,700   TIME: 16:18:49

Input Set : A:\455c17.app.txt
Output Set: N:\CRF3\12182001\J007700.raw

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L:30 M:270 C: Current Application Number differs, Wrong Format
L:51 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:52 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:86 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:103 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:104 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:121 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:126 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:128 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:129 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:130 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:131 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:132 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:148 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:153 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:154 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:155 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:156 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:157 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:158 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:159 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:177 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:180 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:181 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:182 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:183 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:184 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:204 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:205 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:206 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:207 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:208 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:209 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:210 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:211 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:234 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:235 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:254 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:295 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:297 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:298 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:300 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:301 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:302 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:303 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:304 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:326 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:327 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
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Input Set : **A:\455c17.app.txt**
Output Set: **N:\CRF3\12182001\J007700.raw**

L:328 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:329 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:345 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14